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09/806,274	03/27/2001	Wayne Edward Beimesch	390780	6754

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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

GROUP 2800

Paper No. 18

Application Number: 09/806,274
Filing Date: March 27, 2001
Appellant(s): BEIMESCH, WAYNE EDWARD

Janelle Strode
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 27 May 2003.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect. The appellant filed arguments after final, but there has been no amendment to either the disclosure or the claims after final.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The appellant's statement of the groupings of the claims is correct.

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,140,845 ¹	Robbins	09-1992
4,930,906 ²	Hemphill	06-1990

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-7, as amended, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,140,845 to Robbins. Robbins clearly discloses a method to test for volatile organic compounds (VOCs) using both a sealable bag (reference item 120) to store a material and a flame ionization detector (FID) to perform the tests (column 3, lines 67-68). Robbins discloses that storage tanks are a source of VOCs (column 1, lines 16-20). With regard to claims 1 and 7 Robbins discloses that it is beneficial to store the bag at an optimum temperature in order that the headspace reach a state of equilibrium (column 5, lines 1-6). With regard to claim 4 Robbins discloses that time is a relevant factor to reach the desired equilibrium in the headspace (column 4, lines 57-58). With regard to claim 5 Robbins discloses that the initial mass of the sample is directly related to the measured equilibrium headspace concentration (equation 5, equation 7).

Robbins discloses the claimed invention except for the express recitation of material from a "process system" that is stored for 5 to 24 hours, has an initial material mass of 1 to 100 grams, and has a temperature range that varies from 5° C to 100° C. It is well known in the art that temperature affects the mass transfer coefficient, and, therefore, the time needed to obtain equilibrium of the headspace. Furthermore, one of ordinary skill in the art would be highly motivated to ensure that the material is subjected to its expected operating conditions in order to

¹ Cited by the applicant in the IDS filed 27 March 2001

² Cited by the examiner in the initial and final rejections of the claims.

Art Unit: 2856

accurately determine if VOCs are being released. The range limitations recited represent optimum ranges in order to reach headspace equilibrium and would be determined on a case-by-case basis for the material being tested. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. See *In re Aller*, 105 USPQ 233.

In all the appellant intends to distinguish the instant application from a method to test for VOCs using the device of Robbins based on the sole criteria that the method claimed includes the step of collecting the material to be tested from a "process system". The appellant defines in their disclosure that a process system is a spray dryer, mixer, fluid bed dryers and coolers, or storage tanks (page 4, lines 26-28). Robbins, as noted above, tests material that may have been exposed to VOCs from leaks in storage tanks. One of ordinary skill in the art would clearly recognize that if the material in the storage tank has VOCs, then so to would any material exposed to leaks from the tank. Furthermore, the appellant identifies in their disclosure the use of a resealable polyethylene bag in order to contain the material to be tested (page 3, lines 26-28). This is the same type of bag used in the device and method of Robbins. Clearly if a polyethylene bag is used to test the material in the instant application, then the method to use the bag of Robbins would clearly be applicable to the claimed method of the instant application. One of ordinary skill in the art would clearly recognize and understand that the method to use the bag to contain a sample or material containing VOCs is not dependent on the source of the material. That is, any material, either from the ground or from some other system, facility, or process, can be placed in the bag of Robbins and tested for VOCs. Finally, the appellant has not provided specific methodology steps needed to collect the VOC-containing material from a

Art Unit: 2856

“process system” for placement in the polyethylene bag that are both dependent on the source of the VOC-containing material and that also provides for a new, novel, or otherwise unexpected result over the method to use the device of Robbins. That is, the appellant does not disclose or claim how collecting VOC-containing material from a process system differs from the collecting VOC-containing material of the method of Robbins. Since it is widely known that VOCs may be a substantial health and environmental hazard, it would have been obvious to one of ordinary skill in the art that material suspected of containing VOCs, despite its source, should be tested for VOCs. In this regard, the method to use the device of Robbins would clearly be applicable to any material source. The source of the material does not provide for unobvious or unexpected result over a method to use the device of Robbins.

Claims 8-10, as amended, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,930,906 to Hemphill. Appellant’s intended use, that being for holding VOC-containing material from a process system, has not been given any patentable weight by the examiner. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). The appellant claims a kit comprising a bag that can be sealed and instructions. This is clearly anticipated by the device of Hemphill where a resealable bag (reference item 10) has instructions (reference items 18 and 20). One of ordinary skill in the art would be highly motivated to ensure that

Art Unit: 2856

appropriate instructions related to the intended use of the bag would be included as a matter of design choice. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Hemphill to obtain a resealable bag with instructions to store and test the VOC-containing material.

(11) Response to Arguments

a. Appellant's argue that Robbins fails to teach a method to determine the presence of VOCs in a material from a process system having emissions.

Examiner's Response: With regard to claim 1, the appellant intends to distinguish the claimed method over the prior art of Robbins by citing the use of a process system as the source of the material containing volatile organic compounds (VOCs) in the claim's preamble. It is the position of the appellant that the only specific teaching that Robbins does not make with regard to the appellant's method claim is testing material that is from a process system. The examiner reviewed the appellant's disclosure in order to determine what is intended by the term "process system". The examiner noted in the Final Rejection sent to the appellant that their disclosure defined the term "process system" on page 4, lines 26-28 as follows (emphasis added):

"[e]xemplary process systems or unit operations on which the method may be employed, include but are not limited to, spray dryers, mixers, fluid bed dryers and coolers, and storage tanks".

It should be noted that there is no other discussion in the appellant's disclosure with discusses the specifics of these "process systems". After understanding the appellant's definition for a "process system", the examiner again reviewed the Robbins reference. It was noted to the appellant that Robbins disclosed the testing of materials obtained from regions surrounding storage tanks. If the material surrounding the storage tank is tested and shows evidence of VOC contamination, as taught by Robbins, then one would easily conclude that the storage tanks are

Art Unit: 2856

more than likely leaking. One would further conclude that the material in the storage tank, if tested, would also show the presence of VOCs.

Robbins clearly shows a bag into which a material suspected of comprising VOCs is placed. The bag is then sealed and the headspace allowed to reach equilibrium. A flame ionization detector (FID) is then used on a sample of the air from the headspace in order to determine if VOCs are present. It is clear that Robbins discloses that the material to be tested is earth that has been exposed to VOCs from a secondary source, such as a storage tank. Furthermore, it is clear from Robbins that the the method used to test for VOCs is highly independent of the source of the material. That is, once the material is collected and is placed in the bag, the steps of reaching equilibrium, sampling, and the use of the FID are independent of the source of the material. Additionally, the appellant has not shown how the device of Robbins would not operate if used with material that is from a different source, such as a kiln dryer or other "process system". Given the fact that the presence of VOCs in any material is well known to be hazardous to those handling or otherwise exposed that material, one of ordinary skill in the art would clearly recognize that the device of Robbins would be useful in a method to test for VOCs from material from any source. Finally, the method that Robbins discloses would be easily modified by one of ordinary skill in the art in order to obtain material from any source in order that it be tested for the presence of VOCs.

The examiner concluded that one of ordinary skill in the art would be highly motivated to modify the method of Robbins, where surrounding soil near storage tanks is tested for VOCs, in order to test other material sources for VOCs such as process systems. To further support this, one can find a listing of about 97 known VOCs from the Environmental Protection Agency

Art Unit: 2856

(EPA) using EPA Method 8260. Also, there are applicable federal regulations enacted, particularly 40 C.F.R. 59 and 40 C.F.R. 60, which provides information relating to the types of hazardous materials to be controlled and the monitoring for the hazardous materials. Furthermore, the appellant points out in their disclosure's Background of the Invention of page 1, that (emphasis added)

"[t]he concerns associated with VOC control and monitoring are well rooted in governmental policies throughout the world, all of which are aimed at reducing the emission of such VOCs into the atmosphere... Additionally, the manufacturing industries themselves have been notably concerned with safety and environmental concerns associated with VOC emissions"

and

"...relatively expensive and time consuming VOC measurement techniques have been developed and have been constantly employed to monitor VOC emissions of virtually every unit operation in every manufacturing facility throughout the world."

In all there is sufficient information available to one of ordinary skill in the art that shows which specific compounds are hazardous and must, by law, be monitored. Even if the law did not require specific facilities that used processes systems to monitor for VOCs, if one suspected that their process produced material that may comprise VOCs then surely one would act in the interests of public and personal safety and test the material for the presence of such compounds. Clearly the apparatus that is disclosed by Robbins could accommodate any material independent of the origin of the material. Finally, given the fact that VOCs are known hazardous compounds, one would be highly motivated to modify the teachings of Robbins in order to obtain samples from process systems that produce VOC-containing materials.

b. Appellants argue that Hemphill fails to teach a kit for use in measuring VOCs in a material from a process system having emissions.

Examiner's Answer: With regard to claim 8, the appellant intends to distinguish the claimed apparatus over the prior art by the use of a resealable bag to store VOC-containing

Art Unit: 2856

material from a process system. This is the intended use of the claimed bag and, as stated in the Final Rejection, was not considered by the examiner. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Bags are well known to be capable of storing a myriad of different materials. The appellant discloses, but does not claim the use of Polypropylene bags. These bags in particular exhibit sufficient strength and durability to store foods, articles, or even VOC-containing materials, as seen in the cited Robbins reference. Hemphill discloses a bag that is resealable and comprises instructions in order to use the bag. The size, shape, and composition of the sealable bag is such that it could be used in combination with the sampling device from the Robbins cited art in claims 1-7 wherein a sampling probe is inserted into the bag to draw the air from the headspace. Finally, though Hemphill most certainly provides pertinent instruction on how to store grease, one of ordinary skill in the art would clearly know to provide instructions that are appropriate for the bag's intended use. The bag of Hemphill has the inherent capability to store VOC-containing material. The appellant has not disputed this. Finally, Hemphill need not suggest or otherwise indicate that their bag can be used for storing VOC-containing material from a process system. See *In re Schreiber*, 44 USPQ2d 1429, where it was stated:

“Question whether reference is analogous art is irrelevant to whether that reference anticipates claimed invention; reference may be from entirely different field of endeavor from that of claimed invention or may be directed to entirely different problem from that addressed by inventor, yet reference will still anticipate if it explicitly or inherently discloses every limitation recited in claims”

and

Art Unit: 2856

"Examiner correctly found that functional limitations of application claim for conical dispensing top for popped popcorn were inherent in prior art conical spout for open-ended containers, and that functional limitations thus did not give claim patentable weight, since embodiment according to prior patent and embodiment depicted in figure in application have same general shape; examiner therefore correctly found that prior patent established prima facie case of anticipation."

The examiner concludes, based on the above information, that modifying the teachings of Robbins to obtain a method for determining the presence of VOCs in materials from a process system would have been obvious modification to one of ordinary skill in the art. The examiner concludes, based on the above information, that modifying the teachings of Hemphill to obtain a kit comprising a sealable bag used to store VOC-containing material along with instructions on how to store and test the material method for determining the presence of VOCs in materials from a process system would have been obvious modification to one of ordinary skill in the art.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


dark

June 25, 2003

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